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RARE PLANTS ON THE IDAHO PANHANDLE NATIONAL FORESTS



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RARE PLANTS ON THE IDAHO PANHANDLE NATIONAL FORESTS

Prepared by:

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Botanist/Ecologist**

**for the
Idaho Panhandle National Forests
Coeur d'Alene, Idaho**

Special thanks to:

**Jill Blake and Paul Harrington,
Idaho Panhandle Nat'l Forests
Bob Moseley, Botanist/Ecologist
Idaho Natural Heritage Prog.**

Photo credits:

**Idaho Natural Heritage Program
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Steve Caicco, Joe Duft, Peter Lesica,
Bob Steele and Christine Lorain**

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A complete list is available from:

Forest Botanist/Ecologist
Idaho Panhandle National Forests
1201 Ironwood Dr.
Coeur d'Alene, Idaho 83814

SPECIES BY GENERAL HABITAT

Sphagnum Bogs

Botrychium subgenus Botrychium
Cypripedium calceolus parviflorum
Gaultheria hispidula
Lycopodium inundatum
Trientalis arctica
Vaccinium oxycoccus

Moist, Coniferous Forests

Botrychium subgenus Botrychium
Blechnum spicant
Cardamine constancei
Cypripedium fasciculatum
Maianthemum dilatatum
Rubus spectabilis
Sanicula marilandica
Thelypteris phegopteris
Trientalis latifolia
Viola sempervirens
Waldsteinia idahoensis

Grassy Openings in Conifers

Botrychium subgenus Botrychium
Grindelia howellii
Mimulus clivicola

SENSITIVE PLANTS

This guide contains data and non-technical descriptions of selected rare and sensitive plant species on the Idaho Panhandle National Forests.

The Forest Service, along with other Federal and State agencies, has recognized the need for special planning considerations in order to protect the flora and fauna on lands in public ownership. Species recognized by the Forest Service as needing such considerations are those that (1) are designated under the Endangered Species Act as endangered or threatened, (2) are under consideration for such designation, or (3) appear on a regional Forest Service Sensitive Species list.

Sensitive Plant Species - a plant species, or recognized subsp. or variety, for which the Regional Forester has determined there is a concern for population viability, within a state, as evidenced by a significant current or predicted downward trend in populations or habitat.

FINDING A RARE PLANT

Location of any rare plant species contained in this guide or occurring on the Idaho Panhandle National Forests Sensitive Plant list should be documented as follows:

1. Complete a survey form (available from the Forest Supervisors Office) or document the find including the data listed on page 3.
2. Map location with precise detail (preferably a USGS topographic map) and draw a micro-map of exact location in relation to identifiable landmarks.
3. Collect a voucher specimen if the population size and number warrant. Never collect specimens if <10 plants are found at a site.
4. Report sighting to the District Plant Coordinator or Forest Botanist and the Idaho Natural Heritage Program (600 S Walnut, P.O. Box 25, Boise, ID 83707).

DOCUMENTATION

Species name

Location: As detailed as possible

State

County

Forest

Ranger District

Township/Range/Section 1/4 of 1/4

Distance from landmark

***** drawings are helpful *****

Habitat (habitat type if known)

Elevation

Slope

Aspect

Soil type and moisture

Flower color/smell

Height of plant

Number of plants (or estimate)

Size of population (area estimate)

Additional important notes

***** DON'T FORGET *****

Your name & how you may be contacted

Blechnum spicant
deerfern



Family: Polypodiaceae (common fern family)

Distribution: Circumboreal, S along coast to CA; disjunct in N Idaho.

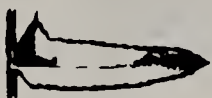
Idaho Counties: Bonner and Clearwater

Habitat: Lower elev. (<3000 ft) in moist mineral soils of shaded western redcedar forests. Mostly in THPL/ADPE habitat type, but found in all Thuja plicata series and TSHE/CLUN habitat types.

Description: Evergreen, perennial fern with two kinds of leaves (fronds). Sterile fronds are leathery, shiny dark green and clumped. Fronds are once-divided into smooth-edged segments (pinnae) that attach directly to the main leaf axis (rachis). Fertile fronds are taller, erect, and divided into very narrow segments that bear spores.

Unique Characters: Erect, fertile frond emerges from the center of the fern clump.

Confused with swordfern (Polystichum munitum), which has a single type of leaf and stalked pinnae with toothed margins.

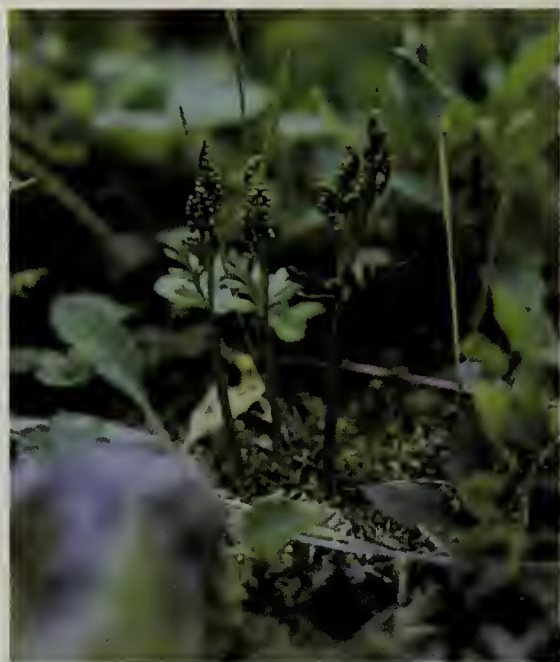


swordfern



deerfern

Botrychium* subgenus *Botrychium
moonworts



5 species of moonworts known in Idaho - ALL rare

Family: Ophioglossaceae (adder's tongue family)

Distribution: various throughout N. Am. and scattered in Idaho, mostly northern Idaho.

Habitat: Habitats vary within and between species:

Botrychium crenulatum (crenulate moonwort) damp meadows and boggy places at low elevations.

Botrychium lanceolatum (lance-leaved moonwort) moist grassy & rocky slopes, meadows and woods.

Botrychium minganense (Mingan moonwort) meadows, prairies, and mature shaded forest understories.

Botrychium pinnatum (northern moonwort) grassy slopes, streambank, roadsides, and mossy woods.

Botrychium simplex (least moonwort) - meadows, barrens, and mature shaded forest understories.

Description: Small, inconspicuous plants with the leaf (frond) divided into one sterile and one fertile portion. Species distinctions are subtle and often based on the sterile leaf, which in many moonworts is once-divided into fan-shaped segments.

A number of closely related species. ALL new sightings must be verified by a qualified botanist.

Thelypteris phegopteris
beechfern



Family: Polypodiaceae (common fern family)

Distribution: Circumboreal, S to n Oregon, se British Columbia, and far n Idaho.

Idaho Counties: Boundary

Habitat: Moist, low ground including meadows, marsh edges, and streamsides in shaded woods. The Idaho population occurs along a stream in a shaded mosaic of THPL/ATFE and THPL/GYDR habitat types.

Description: Deciduous, perennial fern from a long, slender, underground rooting stem (rhizome). Leaves (fronds) are 2-3 dm tall and emerge scattered and solitary from the rhizome to form small or large patches. Fronds are triangular in shape and divided into 10-25 pairs of lateral branches (pinnae). The lowest pinnae pair points downward.

Unique Characters: Solitary stems with triangular leaves and distinct downward pointing lower pair of pinnae.



Cardamine constancei
Constance's bittercress



Family: Brassicaceae/Cruciferae (mustard family)

Distribution: Regional endemic to n Idaho - found in the St. Joe, North Fork Clearwater, Lochsa, and Selway River Canyons.

Idaho Counties: Clearwater, Idaho, and Shoshone.

Habitat: Lower elev. (<3000 ft) in shaded, moist to dry, mature or late seral western redcedar and western hemlock forests. Mostly Thuja plicata and Tsuga heterophylla series, especially THPL/ADPE, THPL/GYDR, TSHE/GYDR, and TSHE/ASCA habitat types.

Description: Perennial herb from a slender, underground rooting stem (rhizome). Plants grow from 1.5-4 dm tall. Leaves are ovate, shallowly lobed, and appear whorled near the top of the stem. Flowers are 2-3 cm across and consist of 4 white to pink petals. Plants bloom from May to June and are most prolific when exposed to partial light.

Unique Characters: Pale pink flowers with four petals and "whorled" leaves at the top of the stem. The leaf outline with the outer lobes is rather distinct and looks like a "duck's foot".



Cypripedium calceolus var. *parviflorum*
small yellow lady's-slipper



Family: Orchidaceae (orchid family)

Distribution: Rare from British Columbia to WA and OR, east of Cascades to ID, WY, UT, and CO.

Idaho Counties: Bonner (McArthur Lake).

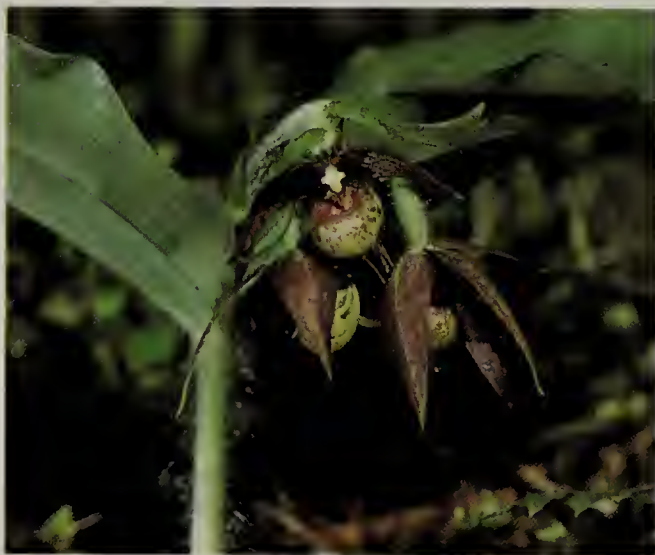
Habitat: Open, wet to moist meadows or boggy areas near lake edges or seepages. Within or surrounded by shrubby birch (Betula), willow (Salix), and alder (Alnus) habitats.

Description: Leafy-stemmed, perennial herb growing 1.5-4 dm tall from a short rhizome. Leaves are elliptic in shape, 6-7 cm long, and sheath (surround) the stem. Flowers generally occur singly (rarely 2) with a yellow lower sac (often purple dotted) and 3 long, twisted or wavy-margined, brownish sepals. Blooms late May to June.

Unique Characters: Only yellow-flowered lady's-slipper in area. A fair number of Idaho plants have two flowers.

Confused with the more common mountain lady's-slipper (Cypripedium montanum), which has 2 flowers with a white lower sac and occurs in drier, wooded habitats.

Cypripedium fasciculatum
clustered lady's-slipper



Family: Orchidaceae (orchid family)

Distribution: Scattered throughout western N Am. from British Columbia to CA and east to CO, WY, and MT.

Idaho Counties: Benewah, Clearwater, Idaho, Kootenai, Latah, and Shoshone.

Habitat: Low to mid elev. (1700 to 4600 ft) in shaded, moist to dry, western redcedar forest; occasionally grand fir stands. Mostly Thuja plicata series, especially THPL/GYDR, THPL/ASCA, and THPL/CLUN habitat types.

Description: Perennial herb with single, hairy stems growing 1.5-3 dm tall. Flowers are inconspicuous, rusty/brown in color, and grow in drooping, terminal clusters. Two rather large, opposite, oval-shaped leaves occur half way up the stem. Blooms from April to July; erect, brown fruit capsules.

Unique Characters: Populations are gen. restricted to <12 individuals in an area < 3yds².

Confused with queencup beadlelily (Clintonia uniflora), which has opposite leaves at or below ground level and white flowers.

Gaultheria hispidula
creeping snowberry



Family: Ericaceae (heather/heath family)

Distribution: Boreal in N Am; Labrador west to British Columbia, south to ne MT and n ID.

Idaho Counties: Bonner and Boundary.

Habitat: Open edges of sphagnum bogs and ponds surrounded by coniferous forest communities mostly of western redcedar and western hemlock.

Description: Creeping, evergreen shrub with brownish hairs on stem and under surface of leaves. Leaves are 4-10 cm long, oval or elliptic in shape with shiny, dark green upper side and brown-hairy lower surface. Flowers are small, bell-shaped, pink, and bloom from May through June. Fruits are white, spongy, berries, 3-5 cm thick.

Unique Characters: Sphagnum habitats, creeping stems, distinct brown hairs on stem and lower leaf surface, and white fruits.

Confused sometimes with another rare plant, wild cranberry (Vaccinium oxycoccus), when no flowers or fruits are present. Look for the dense brown hairs on the stems and leaves of creeping snowberry.

Grindelia howellii
Howell's gumweed



Family: Asteraceae/Compositae (sunflower family)

Distribution: Restricted endemic to two disjunct locations; n Idaho and w-central Montana.

Idaho Counties: Benewah; S of Lindstrom Peak near St. Maries River.

Habitat: Open, sunny, grassy slopes with southern exposures and thin soils over basalts. Slopes are dominated by grasses and shrubs with scattered ponderosa pine and Douglas-fir trees. All sites have received recent or past disturbance. Drier habitat types including PSME/AGSP, PSME/SYAL, and PIPO/PHMA.

Description: Stout, short-lived perennial with upright stems 6-9 dm tall. Stems are glandular, often with several long, soft hairs. Leaves are shiny green, rough, lance-shaped, and resinous. One to several large, bright yellow flower heads bloom from late July to mid-August. Flowers are surrounded by a spherical (1 in. diameter) set of bracts that are reflexed and VERY sticky.

Unique Characters: Shiny leaves with very sticky foliage. Yellow flowers with reflexed bracts below.

Lycopodium inundatum
northern bog clubmoss



Family: Lycopodiaceae (clubmoss family)

Distribution: Circumboreal; w of Cascades from B.C. to nw Calif; n ID and nw MT.

Idaho Counties: Bonner

Habitat: Open edges of sphagnum bogs surrounded by coniferous forest communities mostly of western redcedar, western hemlock or subalpine fir.

Description: Spore-producing plant with annual main stems that are long and grow flat or arching along the ground. Erect, leafy branches up to 1 dm tall arise in a scattered pattern from the main stem. Leaves are crowded and point upward. Reproducing by spores that are hidden in the crowded leaves at the tops of the erect branches.

Unique Characters: Sphagnum habitats, stems that grow flat or arching along ground with erect branches covered with a many small leaves that point upward.

Confused with Lycopodium selago, but unlike northern bog clubmoss, this species has perennial, evergreen stems with alternating zones of spores along the erect branches.

Maianthemum dilatatum
beadruby



Family: Liliaceae (lily family)

Distribution: West of the Cascade Crest from AK to n CA; disjunct in northern Idaho.

Idaho Counties: Bonner

Habitat: Lower elev. in shaded, moist, mature or late seral western redcedar forest; often on flat flood plains or near small streams with many ferns. Mostly in Thuja plicata and Tsuga heterophylla series, especially THPL/ATFE, THPL/GYDR, THPL/ASCA, and TSHE/GYDR habitat types.

Description: Perennial herb from spreading, underground rooting stems (rhizomes). Erect, hairless stems grow 1-3 dm tall. Leaves are parallel veined, shiny green, and shaped like a heart or arrowhead. Flowering stems usually have two, alternate leaves. Plants bloom from May to June with several small, white flowers forming a terminal cluster. Fruits are round red berries.

Unique Characters: Populations tend to grow in small or large clumps of shiny green leaves. The heart or arrowhead leaf shape with parallel leaf veins is unique.

Mimulus clivicola
bank monkeyflower



Family: Scrophulariaceae (figwort family)

Distribution: Regional endemic to n and w-central Idaho, and far ne Oregon.

Idaho Counties: Adams, Benewah, Clearwater, and Idaho

Habitat: Two different types between n and w-central Idaho populations: Northern Idaho - lower elev. (<3000) in open pockets of moist, loose, exposed mineral soils within PIPO/FEID, PSME/PHMA, and ABGR/PHMA habitat types. Plants generally grow on steep slopes (<60%) with sunny, southern aspects.

Description: A diminutive spring annual growing 2-10 dm tall. Leaves are opposite and elliptic in shape. Sticky, glandular hairs cover the entire plant. The pale pink flowers are showy and large (1-2 cm long) compared to the plant's overall size. Blooms from late May to mid-July.

Unique Characters: Look for very small, pink-flowered plants in open pockets of moist, exposed soils. SMELL is an excellent character, especially when not flowering! Plants produce a VERY distinct musky, sweet smell when herbage is rubbed.

Rubus spectabilis
salmonberry



Family: Roseaceae (rose family)

Distribution: West of the Cascade Crest from AK to n CA; historical disjunct collection from n Idaho.

Idaho Counties: Bonner (Priest Lake vicinity).

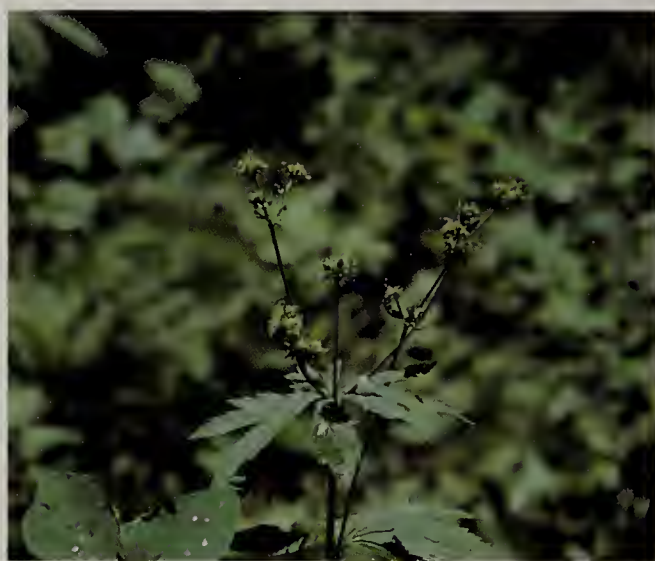
Habitat: Lowland moist woods, swamps, and streambanks. Idaho collection is likely from moist, partially-shaded conifer forest, possibly in a THPL/CLUN habitat type.

Description: A rather gangly perennial shrub growing 1-3 meters tall from extensive, underground stems (rhizomes). Stems are erect and arching, often without prickles or with straight prickles on the lower stem. Leaves are generally divided into 3 leaflets with toothed margins. Showy, bright magenta flowers bloom from March to June followed by yellow- or orange-colored raspberry-like fruits.

Unique Characters: Shrub with magenta flowers, orange fruits, few or no prickles, and 3-foliate leaves.

A historical collection (1901) from the Priest Lake area is the only record for this species east of the Cascades.

Sanicula marilandica
black snake-root



Family: Apiaceae/Umbelliferae (parsley family)

Distribution: s Canada; e of Cascades from s B.C. to s Rocky Mountains; also Newfoundland to FL.

Idaho Counties: Bonner, Boundary, and Kootenai.

Habitat: Moist to wet, low ground including meadows, marsh edges, streamsides, and shaded woods. Several Idaho populations occur along streams in shaded THPL/ATFE, and THPL/OPHO habitat types or in wet meadows with paper birch (Betula papyrifera), red-osier dogwood (Cornus stolonifera), and sedges (Carex sp.).

Description: Erect perennial herb from a cluster of fibrous roots. Stems solitary, 4-12 dm tall, and often branched above. Lower leaves have long petioles and 5-7 leaflets that arise from a common point (palmate). Lower leaves are large (ca. 1 dm wide) and reduced upward. Many small greenish-white flowers cluster in an umbrella-like arrangement (umbel) with a leafy bract below each smaller umbel. Fruits covered with long, hooked prickles.

Unique Characters: Large lower (basal) leaves, flowers in umbels with a leafy bract below, and long, hooked prickles on fruit.



fruit

Tellima grandiflora
fringe cup



Family: Saxifragaceae (Saxifrage family)

Distribution: West of Cascades from s AK to c CA with an extension up the Columbia R; disjunct in se British Columbia, ne Wash, and n Idaho.

Idaho Counties: Bonner (near Coolin and Hope)

Habitat: Wet to moist streamsid es or seepages generally in densly shaded coniferous forests of seral or mature Thuja plicata and Tsuga heterophylla habitat type series. Likely in THPL/CLUN and TSHE/CLUN habitat types (or moister) and associated with Alnus rubra.

Description: Perennial herb growing to 8 dm tall from a rhizome. Lower (basal) leaves are shallowly 5-7 lobed with many hairs on leaf undersurface and along the leaf stalk. Stem leaves reduce upward and eventually end in a long, terminal stalk with 10-35 singly scattered flowers. Flowers consist of a large green "cup" of fused sepals and delicate, greenish-white, fringed petals. Plants bloom from April to July.

Unique Characters: This is the only species in the genus (monotypic genus). Plants look like a very large and robust mitrewort (Mitella).

Tofieldia glutinosa* var. *absona
out-of-tune sticky tofieldia



Family: Liliaceae (lily family)

Distribution: Idaho endemic to Priest Lake, in northern Idaho and possibly central Idaho.

Idaho Counties: Bonner, Idaho (?), Valley (?)

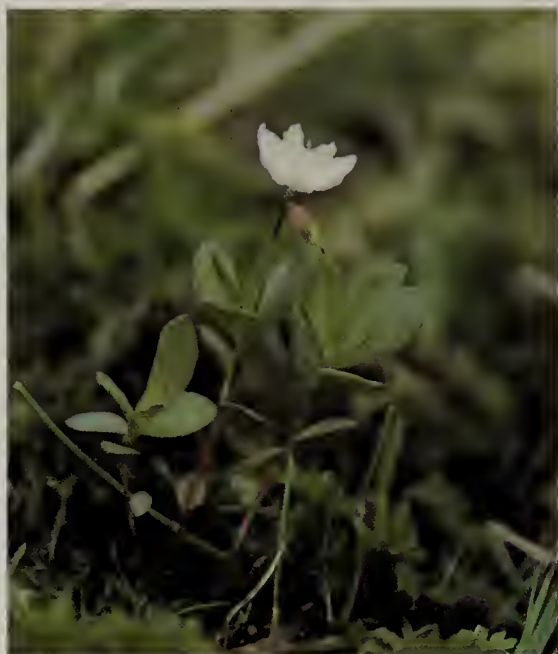
Habitat: Two types: **Northern Idaho** - open edges of low elevation sphagnum bogs or ponds surrounded by coniferous forest communities mostly of western redcedar and western hemlock; **Central Idaho** - sub-alpine fens.

Description: Plants are perennial herbs with stems 1-5 dm tall from a short rhizome. Leaves are flat, strap-like and mostly found near the base of the plant. Flowers bloom from June to August and are arranged in terminal clusters, 1 to 2 cm long, with white to greenish petals. Upper flower stems are covered with short, dense, sticky (glandular) hairs.

Unique Characters: A distinctive species with 5 subtly different varieties. Var. absona is distinguished by "thick" hairs (only twice as long as thick) and bracts below each flower that are often divided to the base.

Verify all new sightings by a qualified botanist.

Trientalis arctica
northern starflower



Family: Primulaceae (primrose family)

Distribution: AK southward in Cascades to n OR, then along coast to n CA; eastward to Alberta, ne WA, and n ID.

Idaho Counties: Bonner and Boundary.

Habitat: Open edges of sphagnum bogs surrounded by coniferous forest communities mostly of western redcedar and western hemlock.

Description: Small, delicate perennial herb mostly 5-10 cm tall from small, horizontal tubers in wet sphagnum. Leaves are lance-shaped and appear "whorled" at the top of the stem with a few reduced leaves along lower stem. Flowers are small (1 cm), white, and star-shaped, and bloom from May through August.

Unique Characters: Sphagnum habitat, "whorled" leaves with smaller leaves below, small white flowers, and horizontal tubers.

Confused with another rare plant, western starflower (Trientalis latifolia). Western starflower is twice as large with pale pink flowers and is not known to occur in sphagnum bogs.

Trientalis latifolia
western starflower



Family: Primulaceae (primrose family)

Distribution: West of Cascade and Sierra Nevada from s B.C. to CA; disjunct to Alberta, and n Idaho.

Idaho Counties: Benewah, Bonner, Clearwater, Idaho, and Latah.

Habitat: Lower elev. (<3000 ft) in shaded, moist to dry, mature or late seral western redcedar and western hemlock forests. Mostly Thuja plicata and Tsuga heterophylla series, especially THPL/ADPE, THPL/GYDR, and THPL/ASCA habitat types.

Description: Delicate perennial herb growing 1-2.5 dm tall from an erect tuber. Leaves are lance-shaped and appear "whorled" at the top of the stem with a few tiny bracts along lower stem. Flowers are small (1 cm), pale pink (sometimes white), and star-shaped. Plants bloom from May through July.

Unique Characters: "Whorled" leaves with tiny bracts below, small pale pink flowers, and erect tubers.

Confused with another rare plant, northern star-flower (Trientalis arctica), which is much smaller, white-flowered and occurs in sphagnum bogs.

Vaccinium oxycoccus
bog cranberry



Family: Ericaceae (heather/heath family)

Distribution: Circumboreal, south to OR and n ID.

Idaho Counties: Bonner (Priest Lake area)

Habitat: Open sphagnum bogs and edge of ponds and lakes surrounded by coniferous forest communities mostly of western hemlock and subalpine fir.

Description: Creeping, evergreen shrub with a slender stem. Leaves are quite small (5-15 mm long) with a shiny, dark green surface and grayish beneath. Leaf margins are rolled back along the margins. Flowers are deep to pale pink with 4 petals that are bent backwards so the stamens protrude. Flowers appear singly or several on short, erect branches and bloom from May through July. Fruits are deep red berries - cranberries.

Unique Characters: Sphagnum habitats, creeping stems, pink flowers, and red cranberry fruits.

Confused sometimes with another rare plant, creeping snowberry (Gaultheria hispidula), when no flowers or fruits are present. Look for the dense brown hairs on the stems and leaves of creeping snowberry.

Viola sempervirens
redwood violet



Family: Violaceae (violet family)

Distribution: West of Cascade and Sierra Nevada from B.C. to CA; disjunct in n Idaho.

Idaho Counties: Bonner, Clearwater, Kootenai, and Shoshone.

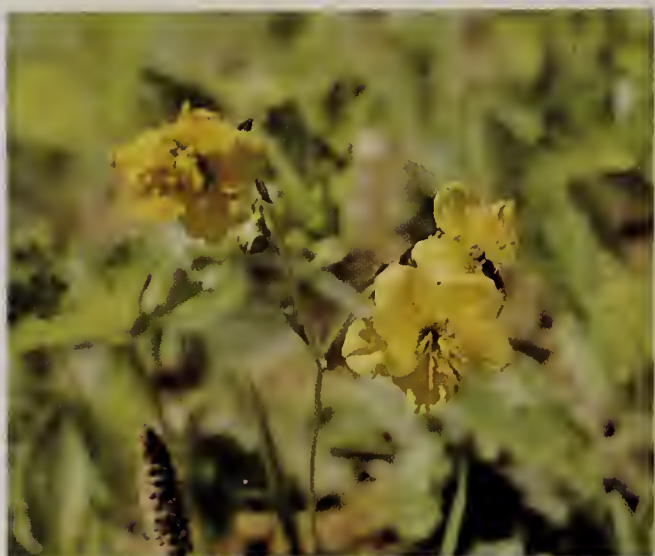
Habitat: Lower elev. (<3500 ft) in shaded, moist, mature or late seral western redcedar and western hemlock forests. Mostly Thuja plicata and Tsuga heterophylla series, especially THPL/ADPE, THPL/GYDR, and THPL/ASCA habitat types.

Description: Low-growing, evergreen, perennial that spread to form new plants by long, creeping stems above (stolon) and below (rhizome) ground surface. Leaves are somewhat heart-shaped, and rather firm and leathery with a few hairs. Flowers are deep yellow and bloom from April to June. Fruits are capsules.

Unique Characters: Often not flowering, so look for evergreen leaves and several plants attached by creeping stems. Disjunct plants do not exhibit the purple-dotting on leaves found on coastal plants.

Confused with Viola orbiculata, which has no stolons.

Waldsteinia idahoensis
Idaho strawberry



Family: Rosaceae (rose family)

Distribution: Regional endemic to north-central Idaho and adjacent Montana.

Idaho Counties: Clearwater, Idaho, and Shoshone.

Habitat: Moist, cool meadows and small openings in forest communities of grand fir, western red-cedar/western hemlock, and subalpine fir stands. Sites are often disturbed by past logging or burning. Known to occur in THPL/CLUN, TSHE/CLUN, ABGR/CLUN habitat types.

Description: Perennial herb growing 5-12 cm. tall from a rooting underground stem (rhizome). Leaves emerge from the ground in small clumps scattered along the rhizome. Leaves almost round in outline with 3-5 shallow lobes and generously covered with scattered hairs. Two to several yellow, rose-like flowers with 5 petals and many stamens bloom in June. Fruits are dry, single-seeded (achene) and erect.

Unique Characters: Roundish leaves in scattered clumps attached by underground rooting stems and yellow rose-like flowers.

HABITAT TYPES

(from Forest Habitat Types of Northern Idaho
by S.V. Cooper, K.E. Neiman, R. Steele,
and D.W. Roberts 1987)

Tsuga heterophylla series (western hemlock)

TSHE/GYDR - Tshe/Gynmocarpium dryopteris
(western hemlock/oakfern)

TSHE/ASCA - T. heterophylla/Asarum caudatum
(western hemlock/wild ginger)

TSHE/CLUN - T. heterophylla/Clintonia uniflora
(western hemlock/queencup beadleily)

Thuja plicata series (westernredcedar)

THPL/OPHO - Thuja plicata/Oplopanax horridum
(western redcedar/devil's club)

THPL/ATFE - Thuja plicata/Athyrium filix-femina
(western redcedar/ladyfern)

THPL/GYDR - Thpl/Gymnocarpium dryopteris
(western redcedar/oakfern)

THPL/ASCA - Thuja plicata/Asarum caudatum
(western redcedar/wild ginger)

THPL/CLUN - Thuja plicata/Clintonia uniflora
(western redcedar/queencup beadleily)

HABITAT TYPES (continued)

Abies grandis series (grand fir)

ABGR/CLUN - Abies grandis/Clintonia uniflora
(grand fir/queencup beadlily)

ABGR/PHMA - A. grandis/Physocarpus malvaceus
(grand fir/ninebark)

Pseudotsuga menziesii series (Douglas-fir)

PSME/PHMA - Psme/Physocarpus malvaceus
(Douglas-fir/ninebark)

PSME/SYAL - P. menziesii/Symporicarpos albus
(Douglas-fir/snowberry)

PSME/AGSP - P. menziesii/Agropyron spicatum
(Douglas-fir/bluebunch wheatgrass)

Pinus ponderosa series (ponderosa pine)

PIPO/PHMA - Pipo/Physocarpus malvaceus
(ponderosa pine/ninebark)

PIPO/FEID - Pinus ponderosa/Festuca idahoensis
(ponderosa pine/Idaho fescue)

GLOSSARY

Achene - single-seeded, dry, non-opening fruit.

Annual - a plant that completes its life cycle in one year.

Biennial - a plant with a 2-year life cycle; 1st year rosette, 2nd year blooms.

Capsule - a dry, opening fruit with many seed and more than one section.

Circumboreal - occurring all around the north pole in boreal regions.

Creeping - spreading along the ground.

Disjunct - small, isolated populations separated by large distances from the main population.

Endemic (narrow or regional) - a species confined naturally to one or a few small populations within a highly restricted geographical area.

Fertile - bearing sporangia (spore cases). Antonym -sterile.

Foliate - having leaflets (trifoliate - 3 leaflets).

Frond - the leaf of a fern.

Herb - a plant with stems that die back to the ground at the end of the growing season; not woody.

Lance-shaped - with a long, tapered apex and a short-tapered base.

Leaflet - a single leaf divided into smaller sections. A compound leaf is composed of leaflets.

Lobe - a projecting segment of an organ.

Margin - an edge of a flat structure, usually a lamina or pinnae.

Node - the place on the stem where a leaf is attached.

Once-divided - with 2 rows of lateral branches or parts along an axis, like barbs on a feather.

Palmate - leaflets or branches arising from a common point.

Perennial - a plant that lives more than 2 years.

Petiole - a leaf stalk.

Pinnae - stalked or sessile, primary divisions of fern frond.

Rachis - a main axis.

Rhizome - a means of asexual reproduction by underground rooting stems.

Segment - see pinnae.

Stalk - a short stem supporting a plant part.

Sterile - lacking sporangia (spore cases). Antonym -fertile

Stolon - an asexual means of reproduction by above ground rooting stems (ie strawberry plants).

Tuber - a thickened root.

Umbel - an arrangement of flowers where individual flower stalks all arise from a common point much like an umbrella.

COMMON NAME

Ferns and Fern Allies

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Flowering Plants

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bog cranberry	40
clustered lady's-slipper	14
Constance's bittercress	10
creeping snowberry	16
fringe cup	32
Howell's gumweed	18
Idaho strawberry	44
northern bog clubmoss	20
northern starflower	36
out-of-tune sticky tofieldia	34
redwood violet	42
salmonberry	26
small yellow lady's-slipper	12
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NOTES

NOTES

*Please don't pick
the flowers!*



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